

A GUIDE TO

LOBSTERING

IN MAINE



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014 13A 0029 30**

July 2009

Introduction

When one thinks about the State of Maine, lobsters come to mind. Historically, this resource has dominated the ranks as Maine's most valuable commercial fishery. In the year 2008 alone, preliminary finds show over 69,700,000 pounds were harvested in the State at a value of over \$244,000,000.

The Maine Department of Marine Resources (DMR) is the state agency authorized to address matters concerning the lobster industry and other fisheries associated with Maine's coastal resources. Its mission is to conserve and develop marine and estuarine resources; to conduct and sponsor scientific research; to promote and develop the Maine coastal fishing industries; to advise and cooperate with local, state, and federal officials concerning activities in coastal waters; and to implement, administer, and enforce the laws and regulations for these enumerated purposes.

This booklet provides information about the history of lobstering, the biology of the lobster, conservation practices, and laws and rules pertaining to the fishery in the State of Maine. A written test for residents interested in acquiring a Non-Commercial Lobster/Crab Harvesting License can be obtained by contacting the following:

Department of Marine Resources
Licensing Division
21 State House Station
Augusta, ME 04333-0021
(207) 624-6550

The answer sheet to the test must be completed and returned along with an application and the required fees to the address listed above. Information can also be obtained at the following websites: (www.maine.gov/dmr) for lobster laws and rules and (www.maine.gov/ifw) for boating laws and rules.

WORD OF WARNING: Information in this booklet should not be relied upon for legal purposes. Laws and rules are routinely subject to change. This booklet is updated to the time of printing, but be aware that changes may occur prior to the booklet being reprinted. If you need further information, please contact one of the DMR's Marine Patrol Offices in Boothbay Harbor (207-633-9595) or Lamoine (207-667-3373) or go on-line to the DMR website listed above.

The History of Lobstering

Historically, lobsters were so plentiful that Native Americans used them to fertilize their fields and to bait their hooks for fishing. The first official Maine lobster landings were reported by James Rosier, a member of Captain George Weymouth's crew. In an account of a voyage to Maine in 1605, Rosier wrote: "And towards night we drew with a small net of twenty fathoms very nigh the shore; we got about thirty very good and great lobsters...which I omit not to report, because it sheweth how great a profit fishing would be..."

In a sense, the Maine lobster fishery began with Rosier's account, and it is therefore probably the oldest, continuously operated industry on the North American continent. Actual development of the fishery, of course, did not take place until many years later. In colonial times, lobsters were considered "poverty food". They were harvested by hand along the shoreline and served to prisoners and indentured servants who exchanged their passage to America for seven years of service to their sponsors. In Massachusetts, some of the servants finally rebelled. They had their contracts state that they would not be forced to eat lobster more than three times a week.

It is not entirely clear when Maine lobsters were first marketed. The commercial importance of the fishery in supplying out-of-state markets did not come about until after 1840. Massachusetts dealers began looking to Maine lobster grounds for a continuing supply of the species. A demand for fresh lobsters in the large marketing areas of New York and Boston was a strong incentive for fishermen to specialize in these crustaceans.

It is believed that the primary factor which resulted in the exploitation of the lobster resource was the sudden success of the canning industry. The spreading fame of Maine lobsters and the lack of adequate facilities for distribution of fresh product were the factors that stimulated the beginning of the canning industry in 1840. During the early years of this new industry, lobsters were brought by smacks, sailing vessels with live wells, to the Eastport cannery from the western part of the State. Before long, the success of the new venture led to the construction of 23 factories scattered along the coast as far west as Portland.

The canneries were so efficient at processing that they were soon forced to work with smaller lobsters. In 1860, James P. Baxter recalled that four to five pound lobsters were considered small and two pound lobsters were being discarded as not worth the effort to pick the meat for canning. Only 20 years later, the canneries were stuffing meat from half-pound lobsters into the tins for processing, a sign that the fishery had been exploited by 1880. The canning industry made obvious the need for conservation and law enforcement if the fishery was to survive.

Following the collapse of the canning industry, the fresh lobster industry took over the commercialization of the fishery. The first lobster pound appeared on Vinalhaven in 1875 and others quickly followed. Originally in deep tidal creeks, today they are more common on docks floating in the harbor.



Fig. 1 Fishing Fleet in Boothbay Harbor



Fig. 2 Lobster Car in New Harbor

Using the pound, dealers could wait for the price of lobster to increase or allow a newly molted lobster time to harden its shell. These live storage facilities became the backbone of the modern lobster industry.



Fig. 3 Pemaquid Lobsterman - 1958

By the 1930's, the traveling smackmen were being replaced by local, land based buyers who served as the link between the harvesters and the public. The buyer purchased lobsters from a harvester who in turn bought fuel, bait, and other gear from the buyer. The local buyer then either sold the lobsters to people who came down to the docks or turned them over to a regional dealer who sent the lobsters out of state. Tidal pounds and other holding devices have made possible the development and maintenance of more stable marketing conditions.

Records of annual harvest and the value of the catch to the State's fishermen have been kept with varying degrees of regularity since 1880. More accurate and detailed records have been compiled annually since 1939. Throughout the 1990's, there have been significant record high landings.



Fig. 4 Hauling Traps aboard the JUBILEE

The Biology of the Lobster

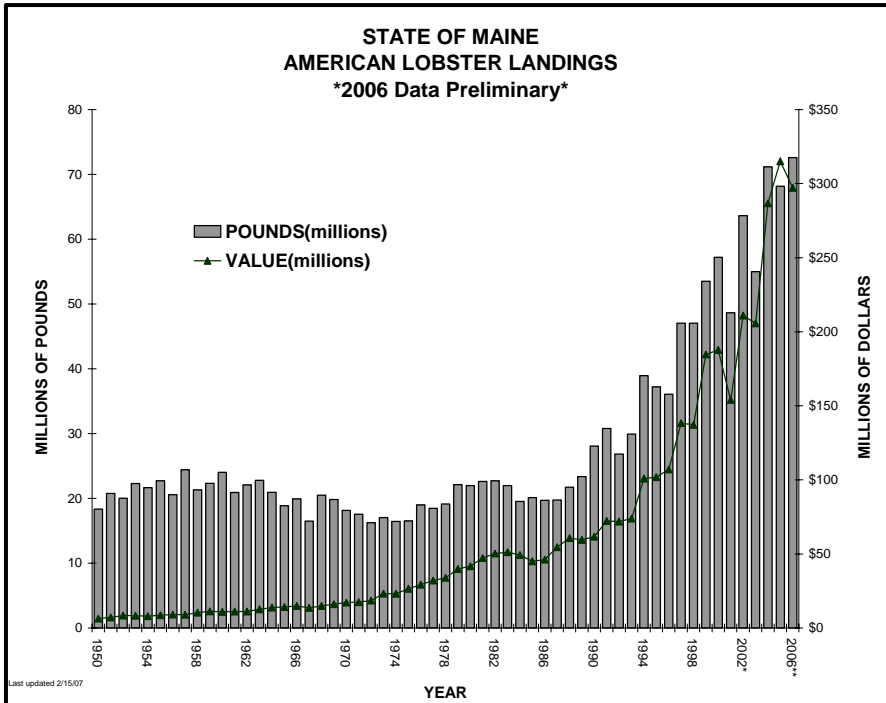
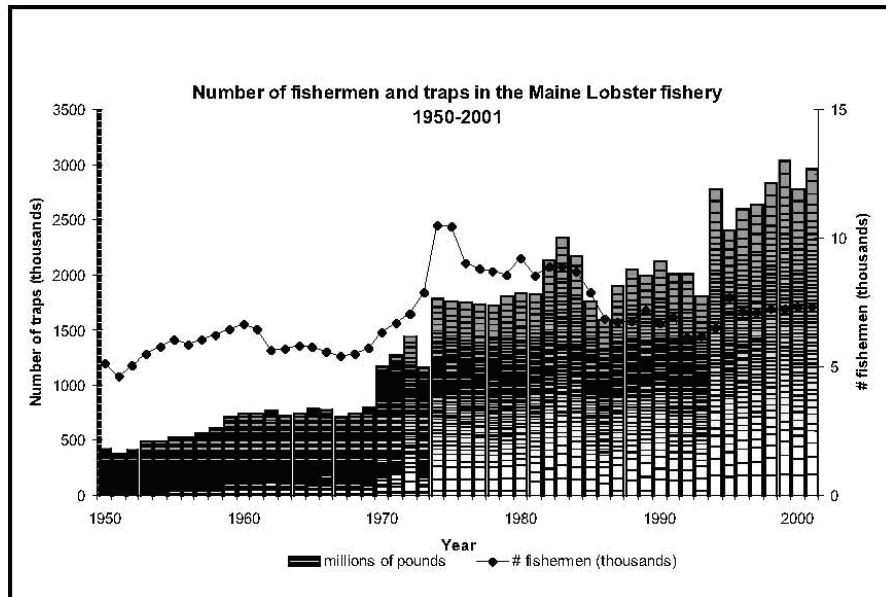
The American lobster (*Homarus americanus*) is one of about 30 species of clawed lobsters found in the world's oceans. Characterized by its large claws, it is the only clawed lobster found in the Northwestern Atlantic. A relatively shallow species, it ranges from Labrador to North Carolina, with the largest concentrations found in the shoal waters off Maine and the Canadian Maritimes.

The lobster is one of the many ten-legged crustaceans found in the ocean. An animal without a backbone, it is protected by an external skeleton composed of a flexible material called chitin. This exoskeleton is a restrictive structure that must be shed before the animal can grow; therefore, a lobster's life is a series of molts regulated by a variety of other factors.

Since lobsters are bottom dwellers at depths where light may be of low intensity, color may or may not constitute camouflage. The familiar dark greenish-blacks are most common, but mixed colors, calicos, blues, reds, yellows, and even albinos, exist. The unusual colored lobsters are genetic mutations. When any of these lobsters are cooked, the pigment is altered by the heat to produce the familiar red color.

The lobster's body consists of two parts: The joined head and thorax (often called the body) and the jointed abdomen or tail. Two compound eyes at the ends of short flexible stalks are located on either side of the sharp, bony projection called the rostrum. Also attached to the head are two pairs of antennae, a short two-branched pair used in the chemical location of food and a long, whip like pair used in touch and orientation.

The lobster uses its claws in the feeding process, with the crusher claw being the larger of the two. Appendages near the mouth, called maxillipeds, direct the food to the jaws. The food passes from the mouth to the three-chambered stomach by a short esophagus. In the mid-chamber, the gastric mill, a set of chitinous teeth grinds the food. In the posterior chamber, juices from the digestive gland, often called tomalley, start digestion. The food is absorbed by the digestive gland and distributed throughout the body by means of the blood. Undigested food passes through the intestine, located down the tail, and exits via the anus. Liquid waste material is extracted from the blood by the antennal glands and excreted through openings at the base of each second antenna.



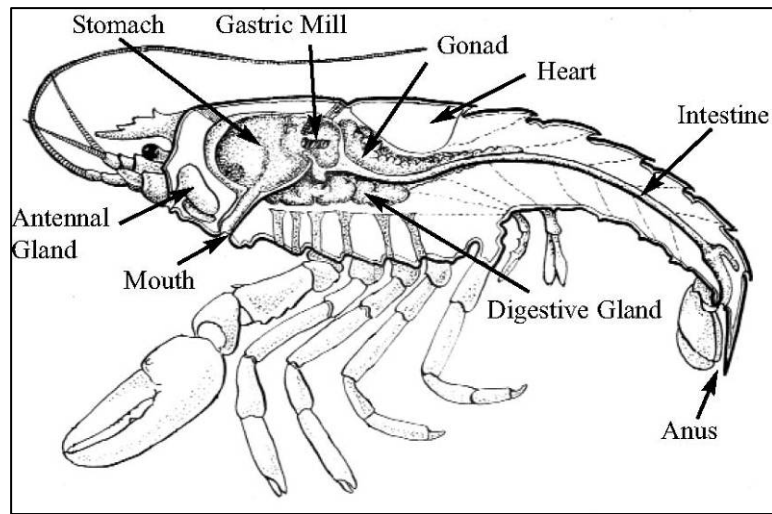


Fig. 7 Internal Anatomy of the Lobster

The gills are enclosed by the curving edges of the carapace in a cavity called the gill chamber. Twenty pairs of gills have numerous filaments arranged around a central axis, somewhat like a bottle brush. The blood flows past these filaments on the inside and sea water passes by the filaments on the outside, allowing the exchange of gases. Water enters the gill chamber from the back and leaves from the front. Movement through the chamber is the result of the constant beating of the second maxilla, called the gill bailer. Every few minutes the gill bailer reverses its beat for a few strokes to wash the silt or other debris from the gills. This process maintains the gills at peak operating efficiency.

Lobsters may take five to eight years to reach sexual maturity. The female sex organs, called the ovaries or "coral", are two cylindrical rods traversing from the middle of the body to the tail. The openings from the ovaries to the outside are located on the basal segment of the third walking legs. The female has a seminal receptacle on the ventral surface near the junction of the thorax and abdomen, which stores viable sperm up to two years after mating. Lobsters mate seasonally, generally just after the female molts.

The female releases a continuous stream of eggs from the oviduct openings. As the eggs pass the seminal receptacle, they are fertilized; covered with a glue-like substance, they stick to each other and the swimmerets. The female protects her eggs from predators, keeps them clean, and oxygenates them for nine to eleven months. When the eggs are ready to hatch, the female walks into the current, unfurls her tail, and vigorously waves her swimmerets, which releases the free-swimming larvae into the water. She releases them a batch at a time, a practice that increases their chances for survival.

The lobster larvae are free swimmers, but are distributed by the water currents. They rise to the surface and actively seek their food from plankton. During this free-swimming period, which lasts from 15 to 25 days, the lobsters are prey to many animals, including their own kind. The newly hatched lobsters do not resemble the adult lobster. They are about 8 mm long with large eyes and no claws. Over a period of a few weeks, the larvae molt three times, changing in size and structure until they look like miniature adults. As stage IV post larvae, they settle to the

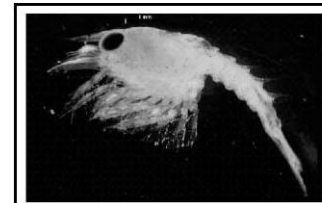


Fig. 8 Stage I Larva



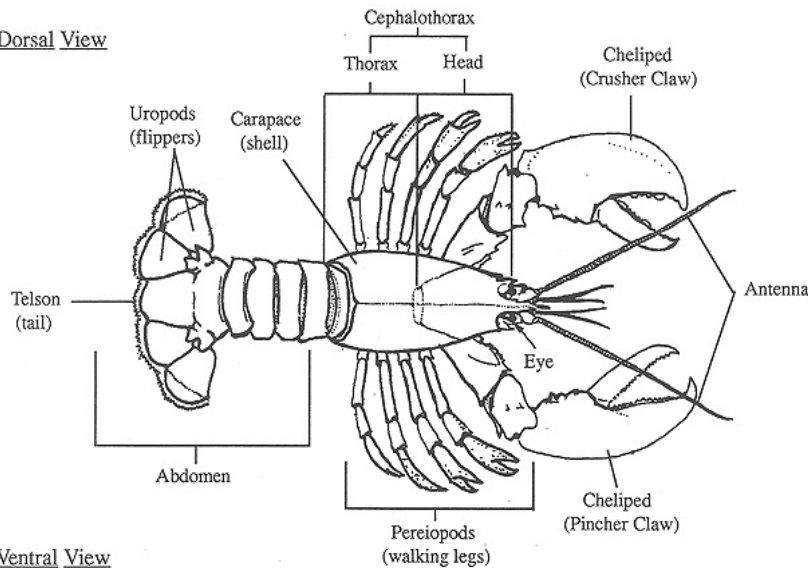
Fig. 9 Stage IV Post Larva

ocean floor and become bottom dwellers. The lobster molts about seven times the first year, then at a slower rate from that point on. From first stage larvae to adult legal size, the lobster has molted between 25 to 27 times. It is estimated that a one-pound lobster may be five to seven years of age. With each molt, a legal sized lobster may increase in carapace length by 14% and gain 40-50% in weight. The record for the largest documented lobster goes to one taken off Nova Scotia in 1977. It weighed 44 pounds, six ounces and may have been 100 years old. One of the most remarkable phenomena of the lobster is reflex amputation. It will throw off an appendage when stimulated by shock, fear, or injury. In this way, it sometimes does itself serious injury to escape a worse fate; however, it has the power to regenerate or grow back a new appendage. A lost claw, walking leg, or antenna will increase in size with each successive molt.

Anatomical Features

Lobster

Dorsal View



Ventral View

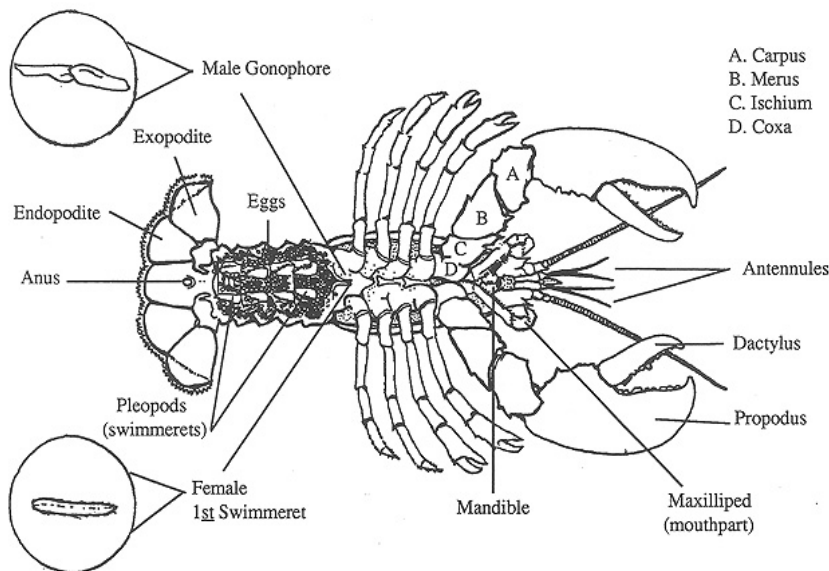
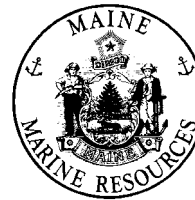


Fig. 10

Maine Lobster Management



Marine resources have always been a traditional part of Maine's culture. From fishing for cod back in the 1800's to new species such as urchins and sea cucumbers, many generations of Mainers have derived their income from the sea. An estimated 73 species of fish; 26 species of whales, porpoises, seals; and 1,600 different bottom-dwelling organisms reside in the Gulf of Maine. There are currently over 70 marine species being harvested commercially. The Department of Marine Resources is required by Maine law to manage these and all emerging fisheries.

The management of the lobster resource is in transition. The federal Sustainable Fisheries Act, passed in 1996, identified the resource as being overfished and mandated the rebuilding of the fishery. This requirement has driven numerous discussions at the National Marine Fisheries Service (NMFS), the Atlantic States Marine Fisheries Commission (ASMFC), the Lobster Advisory Council (LAC), and the State Lobster Zone Councils. In 1997, the ASMFC began the implementation of an interstate conservation plan for rebuilding the lobster stock. The Maine Legislature, responding to LAC recommendations, implemented methods to limit entry by zone into the lobster fishery. These measures will define how the industry will look in the future.

The goal of the ASMFC is to maintain a healthy lobster resource by restoring egg production. Atlantic coast wide requirements include prohibition on possession of berried lobsters, prohibition on possession of lobster parts, prohibition on possession of v-notched female lobsters, requirement for biodegradable panels, requirement for a minimum gauge size, limitation on landings by fishermen using gear or methods other than traps, required permitting and trap tagging, required escape vents, and a maximum trap size. In addition, commercial lobstermen are limited to a maximum of 800 traps per vessel, prohibited from possession of a lobster greater than 5" carapace length, required to v-notch all egg bearing female lobsters, and required to maintain a zero tolerance definition of v-notching. These conservation measures are strongly endorsed by the State of Maine and its commercial lobstermen.

Non-Commercial Lobster/Crab Harvesters

In 1996, the State of Maine passed a law allowing its residents a lobster/crab license for recreational purposes. Traditionally, lobster fishing in Maine was strictly a commercial endeavor, so with this privilege, comes a level of responsibility on the part of the license holder. Remember that lobstering is a heavily regulated fishery and that the laws and rules that apply to commercial harvesters apply to the non-commercial lobstermen as well.

Due to the increase of non-commercial licenses from 207 in 1997 to 2,109 in 2002, the Lobster Advisory Council requested that a training program be developed for non-commercial harvesters. In 2002, a law was passed requiring all applicants of Non-Commercial Lobster/Crab Harvesting Licenses to read the information provided in this booklet and successfully complete a test prior to receiving a license. In order to receive your license, please send the completed answer sheet, your application, license fee, and tag fee to:

Department of Marine Resources
Licensing Division
21 State House Station
Augusta, ME 04333-0021

Should you fail the Non-Commercial Lobster/Crab License test, the Department of Marine Resources will return it to you for a retake. If you have questions or need further clarification concerning the information in this booklet or the laws, please feel free to contact the Bureau of Marine Patrol Division Offices or your local Maine Marine Patrol Officer. Please see the locations below:

Marine Patrol Division I
Dept. of Marine Resources
PO Box 8
W. Boothbay Harbor, ME 04575
(207) 633-9595

Marine Patrol Division II
Dept. of Marine Resources
22 Coaling Station Ln.
Lamoine, ME 04605
(207) 667-3373

Division I provides coverage from Kittery to St. George River
Division II provides coverage from St. George River to Canadian Border
Word of Warning: Information in this booklet should not be relied upon for legal purposes. If you need further information contact one of the DMR's Marine Patrol Offices listed above.

Lobster Laws & Rules

The following information includes highlights of the laws and rules pertaining to lobster and crab fishing in Maine. You will be required to follow these State laws and rules. If you have any questions, please call one of our offices or contact your local Marine Patrol Officer. It is better to ask an officer before he/she finds you in violation. For exact wording of the laws and rules, refer to the title and section for each category, which can be found at the DMR website or by contacting your nearest Marine Patrol Office, Division I, Boothbay (207) 633-9595 or Division II, Lamoine (207) 667-3373.

The Bureau of Marine Patrol is the designated enforcement branch of the Department of Marine Resources. In the field, Marine Patrol Officers are responsible for the enforcement of all marine resource related laws and rules. License holders have the duty to submit to inspection and the search for violations related to licensed activities. Refusal to permit inspection or seizure shall be basis for suspension of any or all licenses. In addition, your license can be suspended for a conviction for the violation of marine resources law under M.R.S.A. Title 12, Section 6306 & 6351.

Summary of Non-Commercial License Activity Title 12, Section 6421

- A holder of a Non-Commercial Lobster/Crab Harvesting License, you must be a **resident** (see glossary) of the State of Maine.
- The license authorizes you to fish for, take, possess, ship or transport lobsters or crabs that you have taken.
- The license does **NOT** authorize you to sell lobsters/crabs.
- As a non-commercial license holder, you may not submerge more than **five (5)** lobster traps at any one time in Maine's coastal waters. This total of **five** includes crab traps.
- The applicant or license holder shall declare the vessel that will be used to conduct lobster/crab fishing activities under that license.
- A maximum of **ten (10)** non-commercial trap tags may be issued to the declared vessel, regardless of the number of non-commercial license holders fishing from that vessel.
- A non-commercial lobster/crab fishing license may be issued to only one person who at the time of application is at least 8 years of age.

Note: This license only allows you, the licensed individual, to engage in the activities discussed above. An unlicensed individual with you may not engage in any licensed activity or assist you, the license holder. These restrictions include the following: hauling/handling lobster traps, banding/measuring lobsters, baiting of bags between hauling traps, and operating the boat between hauling traps.

Methods of Fishing Title 12, Section 6432

- It is unlawful to fish for or take lobsters by any method other than with conventional lobster traps or from any platform other than a vessel. A vessel does NOT include a dock.
- When choosing your buoy color, make sure that no one else in your area is fishing with similar color(s) or a similar color pattern. Your buoy must be **clearly** and **permanently** marked with your license number. Example Branding, painting, or **permanent** marker.
- The buoy color design shall be displayed on the boat in one of two methods.
 - On BOTH sides of the hull or on a panel painted on both sides and attached to the boat's forward topside in a manner so as to be clearly visible on both sides of the boat. Each color shall appear as a solid color strip 4 inches high and 18 inches long abutting another color on its longest side to form a rectangle with a one inch black border on all sides, **OR**
 - A buoy at least 12 inches long, mounted in a manner so the color design is clearly visible on both sides of the boat.
- It is against the law to set, raise, lift or transfer a lobster trap or buoy unless **clearly** marked with your lobster/crab fishing license number.

Ex. Engraved tags or plastic strip with permanent marker.

Note: Both buoys and traps must be **visibly** marked with your lobster/crab license number.

Closed Period Title 12, Section 6440

It is against the law to raise or haul any lobster trap during closed periods.

- It is unlawful to haul lobster gear from ½ hour after sunset until ½ hour before sunrise between June 1st and October 31st.
- It is unlawful to haul lobster gear after 4:00 pm Eastern Daylight Savings Time, Saturday until ½ hour before sunrise the following Monday morning from June 1st to August 31st, both days inclusive.

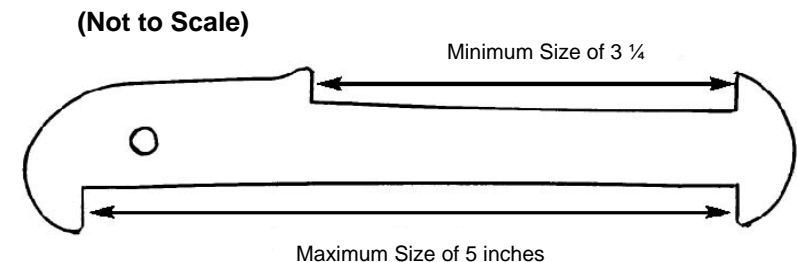
Lobster Measurement Title 12, Section 6431

Lobsters must be measured with a special double-sided gauge to make sure that they are “keepers”. You may purchase a gauge from your local fishing supply store. A legal lobster in the State of Maine has a carapace or body shell length that measures between 3 ¼ inches and 5 inches. The measurement is made between the **extreme rear** of the eye socket to the end of the carapace.

- Minimum lobster size has a carapace or body shell length of 3 ¼ inches.
- Maximum lobster size has a carapace or body shell length of 5 inches.
- Lobsters are measured from the **extreme rear** of the eye socket, along a line **parallel** to the center line of the body shell, to the rear end of the body shell. In order to be a “keeper”, this length must be at least 3 ¼ inches but no longer than 5 inches.



Fig. 11
Measuring a lobster



Lobster measurement is determined by the State of Maine's double-sided gauge.

Measuring a Lobster Correctly

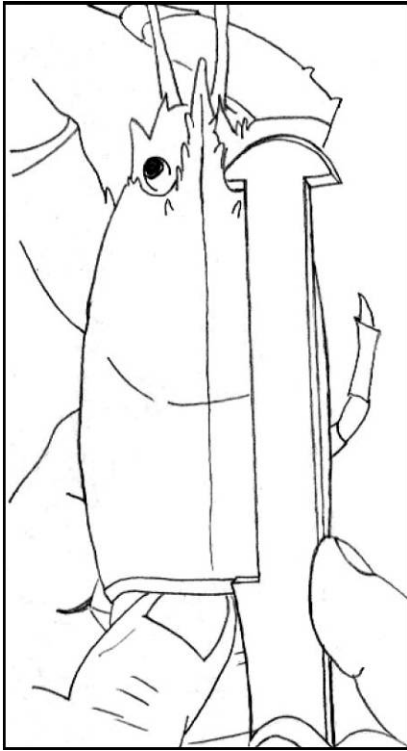


Fig. 12

Note: A common error made by novice lobstermen is to measure over the horn or rostrum located above the eye socket. Make certain that your measure is in the **extreme rear** of the eye socket and below the horn.

Exception: No violation shall occur if the illegal lobster is immediately liberated alive into the coastal waters.

Penalty: For oversized or undersized lobsters a fine of \$500 for each violation and, in addition, a fine of \$100 for each lobster involved, up to and including the first 5, and a fine of \$200 for each lobster in excess of 5, or, if the number of lobsters cannot be determined, a fine of not less than \$1,000 or more than \$5,000. A court may not suspend a fine imposed under this section.

Mutilation: It shall be unlawful to possess any lobster, or part thereof, which is mutilated in a manner which makes accurate measurement impossible.

Bait Title 12, Section 6432-A

It is unlawful to use offal bait to fish for or take lobsters or crabs. **Offal** means the carcass, waste parts, renderings or remains of a wild or domesticated animal that is not a marine organism, but does not include animal hide from which the hair has been removed.

Note: The possession of offal while fishing for or taking lobster or crabs is a violation of this section.

Molesting Lobster Gear Title 12, Section 6434, Rule 25.05

It is unlawful for anyone except the licensed owner, or a Marine Patrol Officer to raise, lift, transfer, possess, or in any manner molest any lobster trap, warp, buoy, or lobster car. An adjudication under this section carries a mandatory **three (3) years loss of license**.

Note: A lobster trap, car, buoy or warp may be moved or removed from the waters or shores of the State for the purpose of returning the lobster gear to the licensed owner or properly disposing of lobster gear by any person who has written permission from a Marine Patrol Officer. Any person who wants to obtain written permission to remove the above described gear must contact the Department in advance of removal. **This includes all gear that has washed ashore and is seemingly abandoned.**

Underwater Storage Title 12, Section 6443

Any trap or other container used for storing lobsters beneath the surface of the coastal waters must be clearly marked with the fishing license number of the person storing the lobsters. Any trap or other container and the contents within, found in violation of this section may be seized and the contents returned to their natural habitat.

Egg Bearing Lobsters Title 12, Section 6436

When a female lobster releases her eggs, they are glued to the swimmerets under her tail. The number of eggs carried by a female varies with her size. The smallest mature lobster in Maine will produce about 6,000 eggs, while the largest will produce about 100,000 eggs. The female lobster protects and oxygenates her eggs for nine to eleven months before they hatch out as larvae. The thousands of eggs under her tail resemble berries, which is why a lobster with eggs is often referred to as a berried female. Scientists estimate that only 1/10th of the 1% of eggs that hatch will survive to minimal legal size.

- It is against the law to take, transport, sell or possess any lobster that is bearing eggs (carried under the tail).
- **Penalty** for possessing an egg bearing lobster is \$1,000 for each violation and, in addition a fine of \$200 for each lobster involved up to and including the first 5, in excess of 5, a fine of \$400 for each lobster, or, if the number of lobsters cannot be determined, a fine of not less than \$2,500 or more than \$10,000.
- There is no violation if a berried female is **immediately** liberated into coastal waters.
- It is illegal to remove the eggs from a berried female. The **penalty for removing eggs** from a female lobster is \$1,000 for each violation and, in addition a fine of \$300 for each lobster involved, or if the number cannot be determined, a fine of not less than \$1,000 or more than \$5,000. (Title 12, Section 6438-A, Subsection 2).

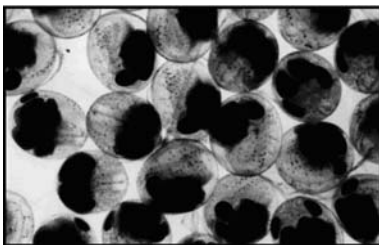


Fig 14 Microscopic view of eggs

When a female releases her eggs, they are green in color. A month before they hatch, the eggs will become transparent, after which time the eyes of the embryo can be seen. These eggs are about 1/16th of an inch in diameter.

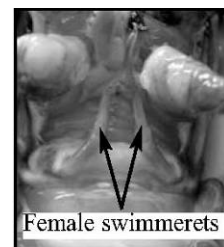
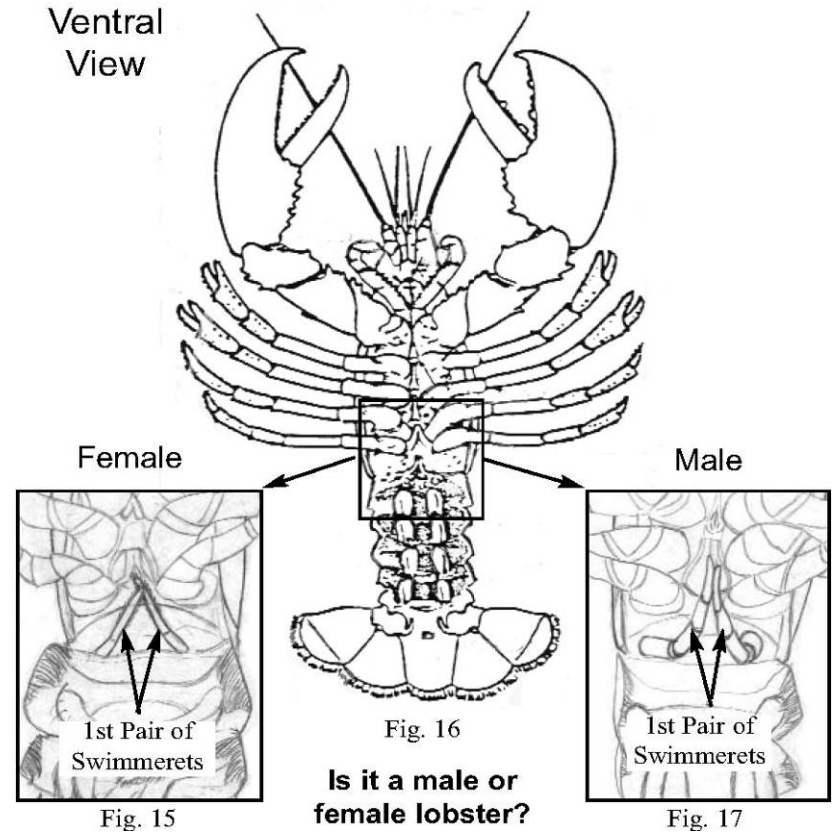
Fig 13 (right) Female carrying eggs



Determining the Sex of a Lobster

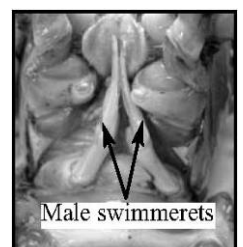
In order to determine the sex of a lobster, you must look at the first pair of appendages under the tail, called swimmerets. They are positioned near the base of the last pair of walking legs. The first pair of swimmerets are hard in the male, and soft and feathery in the female.

Ventral
View



Check the first pair of swimmerets under the tail and near the base of the last pair of walking legs.

Females are soft.
Males are hard.



V-Notched Lobsters

Title 12, Section 6436, Rule 25.15

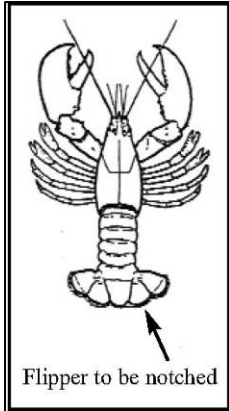


Fig 18

All lobstermen in the State of Maine participate in a **mandatory** v-notch program, requiring them to notch all egg-bearing lobster prior to liberation. The practice of notching a known “breeder” extends her protection beyond the hatching of her eggs. While viewing the top side, the flipper immediately to the right of the center one is subject to be notched should the female lobster be carrying eggs. A v-notch tool or a sharp knife is used to remove a one-quarter (1/4) inch deep portion from the center of the flipper. This v-notch will remain through the next few molts allowing her to reproduce for several years to come. If the v-notch grows out, it should be v-notched again to the one-quarter (1/4) inch size to maintain the protection of this breeder. A natural occurrence may also cause mutilation to a female’s right flipper, which **also** makes her illegal to possess.

- A female lobster marked with a v-notch in the right flipper next to the middle flipper is illegal to possess. The correct flipper is determined when the underside of the lobster is down and the tail is toward the person making the determination.
- It is illegal to possess a female lobster mutilated in a manner which could hide or obliterate a v-notch, including that missing flipper.
- No violation is charged if a v-notched/mutilated female lobster is immediately liberated into our coastal waters.
- The penalty for a v- notched/mutilated female is \$500 for each violation and, in addition, a fine of \$100 or each lobster involved, up to and including the first 5, and a fine of \$400 for each lobster in excess of 5, or, if the number of lobsters cannot be determined, a fine of not less than \$1,000 or more then \$5,000. A court may not suspend a fine imposed under this subsection.

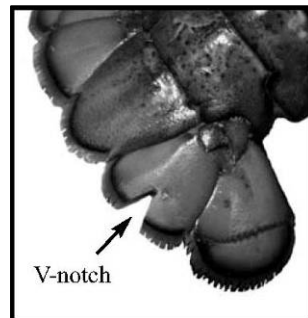


Fig 19

Trap Construction

Lobster traps are also known locally as “pots”. The material used for construction has changed over the years, but the basic compartmented design continues to attract and catch lobsters. Today most lobster traps used in Maine’s fishery are constructed of plastic coated wire. They usually have two funneled openings called “heads”, through which lobsters enter the first compartment commonly called the “kitchen”. After feeding, lobsters may venture through the inner funnel or parlor head into the compartment called the “parlor”.

Escape Vent

Title 12, Section 6433, Rule 25.85

It is against the law to fish for or take lobsters unless the lobster trap is equipped with **unobstructed** vents or gaps in the parlor section. There are two types of plastic vents used in wire traps: rectangular and circular.

Fig 18

- **Rectangular Vent:** This vent has an opening of 1 15/16 inches by 5 3/4 inches. The vent can be placed near the bottom of the trap with the vent opening no higher than one row of mesh from the bottom. The vent can also be placed on top of the parlor section, but must be over the parlor head.



Fig 20 Legal Vent Position



Fig 22 ILLEGAL Vent Position

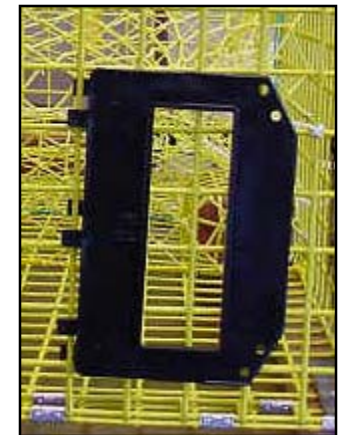


Fig 21 Legal Vent Position

Two mesh row height is too high.

Mesh row 2

Mesh row 1

- Circular vent: This vent has two circular openings 2 7/16 inches in diameter and commonly referred to as “crab vents”. Circular vents can only be used in a trap when the vent is placed in the trap horizontally, not vertically one above the other.

Circular vents can be put in the parlor section of the trap along the bottom edge or on the top of the parlor section, but must be over the parlor head.



Fig 23 Legal Vent Position



Fig 24 ILLEGAL Vent Position

- If you have wooden traps, you must have an opening of 1 15/16 inches along the bottom edge, which can be accomplished by separating the laths of the parlor section or over the head of the parlor section.

Biodegradable Escape Panel **Title 12, Section 6433-A, Rule 25.80**

Biodegradable Escape Panel: All lobster traps must be equipped with a biodegradable ghost panel. A “ghost panel” is a panel which is designed to release lobsters from traps which are lost while fishing. Often times, the ghost panel and escape vent are combined into one unit. This can be accomplished by using ferrous metal hog rings (3/32” in diameter or less) to hold the plastic escape vent in place instead of stainless steel hog rings.

Just be sure that enough of the trap wire is cut out behind the escape vent to meet the required opening of 3 3/4” by 3 3/4” for a ghost panel. By providing a large opening when the hog rings dissolve, the trap does not continue to retain lobsters if it is lost at the bottom of the sea.

Every lobster trap must have an unobstructed ghost panel located near the bottom edge of the parlor section, either on the sides, at the end, or on the top if the ghost panel is placed directly over the head.

- Other than ferrous metal hog rings, ghost panels may be attached using untreated natural material such as cotton, hemp, sisal, jute twine not exceeding 3/16 of an inch in diameter, or soft wood lath.
- Any material may be used as a panel if it is held in place by any of the materials listed above in section a.
- Panels must be constructed in such a manner as to create an unobstructed opening of at least 3 3/4” by 3 3/4” or in a wooden trap, an unobstructed opening at least 3 inches wide along the entire length or height of the parlor section when the panel is removed or opened.



Figure 25
Plastic vent floats open to allow lobsters to escape out of the ghost panel.

Tagged Traps

Title 12, Section 6431-B, Rule 25.08

Tagged Traps: All lobster traps, both commercial and non-commercial, **must** have current State issued tags installed in them to be fished or transported by vessel. The tags must be purchased from the Department of Marine Resources and



replaced yearly. New tags must be installed by June 1st of each year. The tags are required to be securely attached to the bridge of the trap in a manner for which the tag was designed. The lobster trap tag shall be placed in the trap to be clearly visible for inspection by a Marine Patrol Officer.

Fig 26

No person shall fish with, lift, haul, raise, or transport any lobster trap with a tag which has been tampered with or where the tag number is illegible or missing.

Note: Trap tags issued to Non-Commercial Lobster/Crab Harvesting License holders do not display the lobster/crab license number and therefore do not fulfill this requirement. The license number needs to be added to the trap. If a tag is lost or broken, it must be replaced. Contact your local Marine Patrol Officer or DMR headquarters for replacement tags.

Trap Runners

Title 12, Section 6433-B

Trap Runners: A lobster trap must have a device attached to the trap that is designed to prevent damage to the lobster's claws.

- If stick runners are used:
 - The runners may be made out of any material
 - The runners must be at least ¼ inch thick and
 - A minimum of two runners must be attached to the lobster trap, placed on opposite sides of the bottom of the trap.

- If a second layer of material is used in lieu of stick runners:
 - The material must be layered in a manner that creates a mesh size smaller than the base trap mesh when attached to the bottom of the trap.
- If a device other than the ones identified in the above sections is used, it must be designed to minimize damage to the lobster's claws and must be approved by the Commissioner of the Department of Marine Resources.

Federal & State Whale Gear Modification

Required for all traps in Maine Coastal Waters

Rule Chapter 75.01 & 75.02 Protected Resources

In addition to lobster conservation, the Marine Mammal Protection Act and endangered Species Act provide conservation and protection of marine mammals and turtles. The Atlantic Large Whale Take Reduction Plan (ALWTRP) has been developed to reduce to a rate approaching zero fishing gear entanglements that cause serious injury or mortality to all large whales. The State of Maine is fully committed to the protection of the Atlantic Large Whales, while at the same time protecting the economic and operational realities of our State's fisheries. The Department of Marine Resources has implemented a State Take Reduction Plan, which is composed of two primary components, a sightings/surveillance network and a disentanglement network.

The ALWTRP mandates whale safe modifications for **all** lobster gear. The universal requirements are no line floating at the surface, no wet storage of gear over 30 days and encouragement of knot-free buoy lines.

All persons who fish lobster gear in Maine's coastal waters from the head of tide to the Exemption Line shall comply with one of the following ALWTRP options:

1. All buoys must be attached to the buoy lines with a weak link having a breaking strength no greater than 600 pounds;
2. All buoy lines must be made entirely of sinking line; **or**
3. All ground lines must be made entirely of sinking line

NOTE: Weak links may include swivels, plastic weak links, rope of the appropriate strength, hog rings, rope stapled to a buoy stick, or devices approved in writing by the National Marine Fisheries Service (NMFS). In addition, the weak link must be designed so that the bitter end of the buoy line is clean and free of knots when the weak link breaks.

The link below provides charts of the exemption lines for the State of Maine.

<http://www.nero.noaa.gov/whaletrp/plan/outreachsup.html>



Fig. 27 Fishing gear manufacturers have developed a swivel that incorporates a weak link.

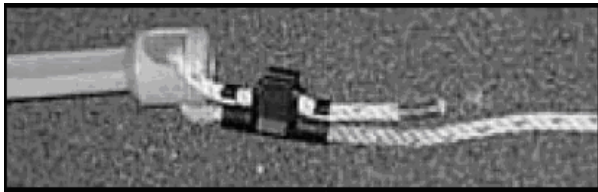


Fig. 28 The Modern Mold Sliplink™ is a knotless system based on the same theory as jam cleat.

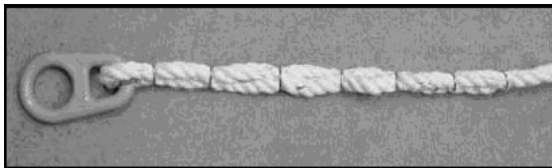


Fig. 29 5/8" Hog Rings - no more than 7 in number.

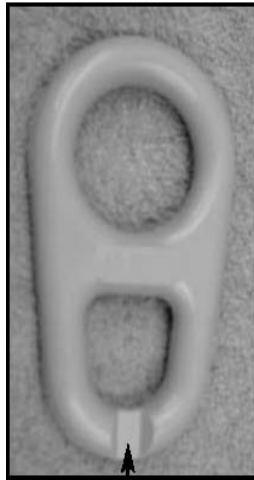


Fig. 30 The flat link has a notched section of plastic, which breaks when a force of 600 pounds or greater is applied to it.

Boating Safety Rules

Classification of Boats

- Class A: Less than 16 feet in length
- Class 1: 16 feet to less than 26 feet in length
- Class 2: 26 feet to less than 40 feet in length
- Class 3: 40 feet to less than 65 feet in length

Length means the distance measured from end to end over the deck, excluding sheer. It is the straight line measurement of the overall length, stated in feet and inches, from the foremost part of the vessel to the aftermost part measured parallel to the centerline, excluding outboard motors, brackets, bowsprits, rudders, and similar attachment.

Safety Equipment on Motorboats and Other Watercraft

The operator of any watercraft on the waters of Maine shall be responsible to see that said craft is equipped as specified in the rule. Nothing in this rule shall be construed to permit the operation of any watercraft on the federal waters in Maine unless they conform to all applicable federal laws and rules pertaining thereto.

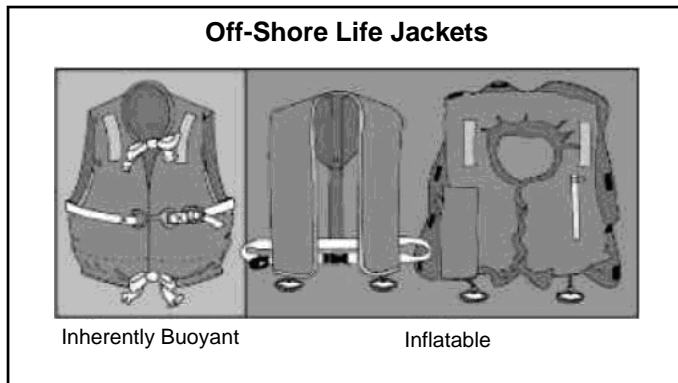
Personal Flotation Devices (PFD)

All personal flotation devices (Types I, II, or III) used aboard watercraft shall be Coast Guard approved, clearly labeled or imprinted as such, placed so as to be readily accessible in the craft, maintained in good serviceable condition, and of an appropriate size for whom the person it is intended. Devices designed to be thrown (Type IV) shall be immediately available on said craft. Devices which use kapok or fibrous glass for flotation material must have such material encased in plastic covers.

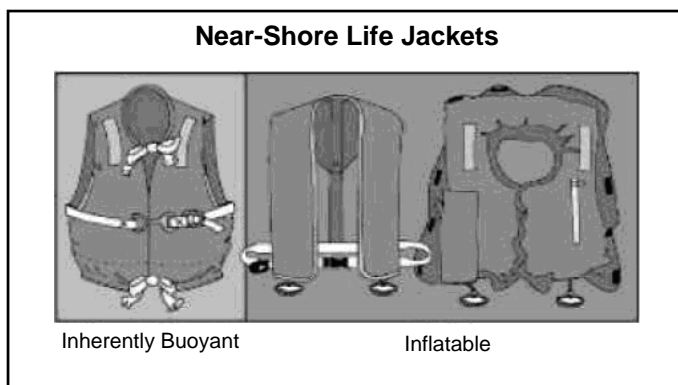
The purpose of a personal flotation device, commonly referred to as a life jacket, is to provide additional buoyancy to help you float. Buoyancy is the force required to keep you afloat with your head and chin above water. This force is expressed in pounds.

Several factors affect the amount of buoyancy that a person may need to float. These include size, weight, lung size, age, percent of body fat and a person's physical condition. Because of these varying factors, it is best to try your personal flotation device in the water before an actual emergency occurs to ensure that it will keep you afloat. Shown below are the different types of PFD's.

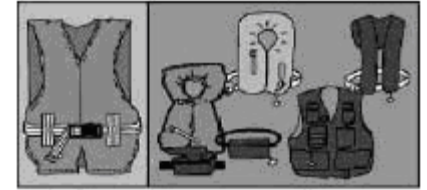
Type I: This is the easiest PFD to pull on in an emergency and is designed for extended survival in rough, open water. It usually will turn an unconscious person face-up and has 22 pounds of buoyancy. This is the best PFD to keep you afloat in remote regions where rescue may be slow in coming.



Type II: This "classic" PFD comes in several sizes for adults and children and is for calm inland water where there is a chance of fast rescue. It is less bulky and less expensive than a Type I PFD and may turn an unconscious person face-up in the water. It has 15.5 pounds of buoyancy.



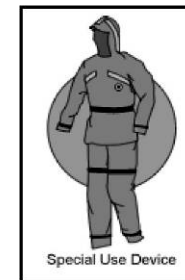
Type III: These life jackets are generally considered the most comfortable, with styles for different boating activities and sports. They are for use in calm water where there is good chance of a fast rescue since they will generally not turn an unconscious person face-up. Flotation aids come in many sizes and have a minimum buoyancy of 15.5 pounds.



Type IV: These are designed to be thrown to a person in the water. Throwable devices include boat cushions, ring buoys, and horseshoe buoys. They are not designed to be worn and should be supplemented by a PFD. It is important to keep these devices easily accessible for emergencies; they should not be used for small children, non-swimmers, or unconscious people.



Type V: SPECIAL USE DEVICE is intended for specific activities and may be carried instead of another PFD only if used according to the approval condition(s) on its label. A Type V PFD provides performance of either a Type I, II, or III PFD (as marked on its label). If the label says the PFD is "approved only when worn", the PFD must be worn, except for persons in enclosed spaces, and used in accordance with the approval label to meet carriage requirements. Some Type V devices provide significant hypothermia protection. Varieties include deck suits, work vests, board sailing vests, and vests with a safety harness.



Immersion Suit: An immersion suit or survival suit will delay the effects of hypothermia in cold water. It keeps the wearer dry, warm, and afloat. It is impractical to wear while working or operating a boat because it restricts maneuverability and is very warm. It should be kept on board the boat for emergency situations. Immersion suits should be stored and maintained according to the manufacturer's instructions.



How many PFD's do you need?

The U.S. Coast Guard and Maine law require that you must have USCG approved PFD's on your recreational boat. The number and type that you will need depend on the size of your boat, the number of people on board, and the age of the people on board. Your PFD's must be in good and serviceable condition. If they become torn or water soaked to the point that they will not dry out, they should be replaced. PFD's must also be readily available. They should not be stored away or kept in their original packaging.

- Watercraft under 16 feet in length: If your boat is less than 16 feet long or is a canoe or kayak of any length, you **MUST** have a **WEARABLE, Type I, II, or III PFD for EACH person on board on ALL waters.**
- Watercraft 16 feet or longer: If your boat is 16 feet or longer, you **MUST** have a **WEARABLE, Type I, II, or III PFD for each person on board, PLUS at least one Type IV (throwable device) on board.** For example: if you have 3 people on board your 16 foot boat, you need 4 PFD's total, 3 wearable PFD's, Type I, II or III **AND** 1 throwable, Type IV.

Mandatory Wearing of Your PFD

While wearing your PFD is not normally required by law, there are four exceptions to this:

- Children 10 years of age and under **MUST** wear a Type I, II, or III PFD while on board all watercraft while underway.
- Anyone canoeing or kayaking on the Saco River between Hiram Dam and the Atlantic Ocean between January 1st and June 1st **MUST** wear a Type I, II, or III PFD.
- Anyone operating or riding on a personal watercraft (jet-ski, etc.) must wear a Type I, II, or III PFD.
- Any person being towed on water skis, surfboards, or similar devices must wear a PFD, life belt, or similar lifesaving device.

EXCEPTIONS:

- Canoes owned by a boys' or girls' summer camp located upon internal waters in Maine, duly licensed by the Department of Human Services, and utilized by campers

under the direction and supervision of a camp counselor at least 18 years of age or older during training and instruction periods on waters adjacent to the main camp within a distance of 500 feet from the shoreline of that camp, shall be exempt from the PFD requirements.

- Log rafts carrying not more than two persons and used on ponds or lakes or internal waters of less than 50 acres in area are exempt from carrying PFD's.

Visual Distress Signals

Any boat 16 feet or more in length or any boat carrying six or less passengers for hire on coastal waters must carry U.S. Coast Guard approved visual distress signals, which must be readily available and in good serviceable condition. Devices suitable for day use and devices suitable for night use, or devices suitable for both day and night use, must be carried.

Between sunset and sunrise, no person may use a boat less than 16 feet in length on coastal waters unless U.S. Coast Guard approved visual distress signals suitable for night use are on board.

No person may use a boat unless the required U.S. Coast Guard approved visual distress signals are readily available and in good and serviceable condition.

EXCEPTIONS: The following persons are exempt from carrying visual distress devices suitable for day use; however, they must carry on board U.S. Coast Guard approved visual distress signals suitable for night use when operating between sunset and sunrise.

- A person competing in any organized marine parade, regatta race or similar event.
- A person using a manually propelled boat; or
- A person using a sailboat of completely open construction not equipped with propulsion machinery, under 26 feet in length.

Fire Extinguishers

Fire extinguishers are classified by letters and numbers according to the type and size fire they can put out. The letter "B" indicates this fire extinguisher is capable of putting out a fire caused by flammable liquids, such as gasoline or oil. **NEVER** attempt to use water to put out a gasoline or oil fire. This will only spread the fire. Fire extinguishers should be checked for cracked or broken hoses. Always keep the nozzles free of any obstructions. Check the pressure gauges for proper pressure. Make sure that locking pins and sealing wires are in place. When a fire extinguisher is required, it must be kept in condition for immediate use and placed so as to be readily accessible at all times.

When are fire extinguishers required?

Vessels without a Fixed Fire Extinguishing System are required to carry:

- Less than 26' – 1 B-I extinguisher
- 26' to less than 40' – 2 B-I or 1 B-II extinguishers
- 40' to less than 65' – 3 B-I or 1 B-I & 1B-II

Vessels with a Fixed Fire Extinguishing System are required to carry:

- Less than 26' – Not required
- 26' to less than 40' – 1 B-I extinguisher
- 40' to less than 65' – 2 B-I extinguisher

Vessels less than 26' which are propelled by outboard motors and are not carrying passengers for hire are not required to carry such fire extinguishers if the construction of such motorboats will not permit the entrapment of explosive or flammable gases or vapors. Bait wells, glove compartments, ice chests, open slatted floors, and sealed compartments completely filled with buoyant flotation material are not considered to be a closed compartment.

One B-II extinguisher may be substituted for two B-I extinguishers. Check your extinguishers pressure gauge regularly.

Note: Whether or not your motorboat is required to carry a fire extinguisher, it is always a good idea to have one on board in case an emergency arises.

Ventilation

Rules require ventilation of all enclosed engine and fuel tank compartments on gasoline powered boats. Ventilation ducts must be at least two inches in diameter. Intake ducting must extend midway to the bilge, or at least below the carburetor air intake in the open air. Manufacturers install exhaust blowers in engine compartments so gasoline fumes can be removed before engines are started.

Flame Arrestors

Internal combustion engines may backfire. To protect against fire, all motorboats, except outboards and diesels, must have a U.S. Coast Guard approved backfire flame arresting device on each carburetor.

Whistle (horn) and Bell Requirements

Every motorboat must be provided with an efficient whistle, horn or other sound producing device. See chart below for requirements. Motorboats propelled by outboard motors while competing in authorized races or use incidental to tuning up of such boats for a race need not comply with these requirements. Except on emergency or enforcement motorboats or to give fog signals, no sirens shall be used.

Length of Vessel	Type of Device
Less than 39'4" No bell Required	Some means of making Sufficient sound signals
39'4" to 65'7" Bell Required	Whistle audible for ½ mile
65'7" to 245'11" Bell Required	Whistle audible for ½ mile

Navigational Lights

Every watercraft in all weathers operating on inland waters from sunset to sunrise shall carry and exhibit the following lights when underway and during such time no other lights that may be mistaken for those prescribed shall be exhibited. Every white light prescribed by this section shall be of such character as to be visible at a distance of at least two (2) miles. Every colored light prescribed by this section shall be of such character as to be visible at a distance of at least one (1) mile. The word “visible” in this subsection, when applied to lights, shall mean visible on a dark night with clear atmosphere.

- Motorboats of Classes A and 1:
 - A bright white light aft to show all around the horizon.
 - A combined light in the fore part of the vessel and lower than the white light aft, showing green to starboard and red to port, so fixed as to throw the light from right ahead to two points abaft the beam of their respective sides.
- Motorboats of Classes 2 and 3:
 - A bright white light in the fore part of the vessel as near the stem as practicable, so constructed as to show an unbroken light over an arc of the horizon of twenty (20) points of the compass, so fixed as to throw the light ten (10) points on each side of the vessel; namely from the right ahead to two points abaft the beam on either side.
 - A bright white light aft to show all around the horizon and higher than the white light forward.
 - On the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of ten (10) points of the compass, so fixed as to throw the light from right ahead to two (2) points abaft the beam on the starboard side. On the port side a red light so constructed as to show an unbroken light over an arc of the horizon of ten (10) points of the compass, so fixed as to throw the light from right ahead to two (2) points abaft the beam on the port side. The said side lights shall be fitted with inboard screens of sufficient height so set as to prevent these lights from being seen across the bow.

- Watercraft under sail: Each motorboat and any other type of watercraft, when propelled by sail alone, shall carry only the combined light or separate side lights as appropriate to its class, and in addition, one white light at the stern so constructed that it shall show an unbroken light over an area of the horizon of twelve (12) points of the compass so fixed as to show the light six (6) points from right aft on each side of the vessel.
- Watercraft under sail and motor: When propelled by sail and machinery, any motorboat shall carry the lights required by this section for a motorboat propelled by machinery only.
- Watercraft Manually Propelled: All other watercraft not propelled by machinery such as rowboats, canoes and rafts, which are only operated by hand power, rowed, paddled or navigated by current, shall have ready at hand a lantern or flashlight showing a white light which shall be exhibited in sufficient time to prevent collision.
- Watercraft at Anchor: Any motorboat anchored on solely internal waters from sunset to sunrise, while occupied by a person or persons, may display in lieu of the above navigation light a single white light showing all around the horizon thirty-two (32) points.
- Enforcement Lights: Only those watercraft used by any law enforcement officer authorized to enforce this regulation or any of the laws of Title 12, Chapter 715 are permitted to use or display a distinctive blue colored, pulsating or revolving lights for the purposes of enforcing these laws on the waters of Maine in addition to any other navigation lights required.
- Towboats: Towboats, when towing booms or rafts of wood products on solely internal waters of this State, shall display, in addition to the required lights for said watercraft, a flashing or pulsating amber light on either or both the towboat and the towed raft.
- International Lights: Any watercraft using International Waters between sunset and sunrise must display lights required under International Regulations for Preventing Collisions at Sea (Colregs 1972). Lights under International Rules may be shown on inland waters.

Credits

Figure 1 – Boothbay Historical Society, circa 1900
Figure 2 – DMR, Archives
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Figure 4 – DMR, Archives
Figure 5 – DMR Records Lobster Landings Program
Figure 6 – DMR Records Lobster Landings Program
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Figure 30 – DMR, Education Division
Cover – Unknown

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Updated and Edited by: Jessica McKay (2009)

GLOSSARY

Appendages: Parts that extend off the main body.

Banding: Placing rubber bands on a lobster's claws.

Berried: A female lobster carrying eggs under her tail which appear like a cluster of berries.

Biodegradable: Capable of being decomposed by natural processes.

Bitter End: The last part of a rope chain; the inboard end of the anchor rope.

Car: A lobster car, crate, box, or other contrivance, whether sunken or floating, that may be used in coastal waters to hold live lobsters.

Carapace: The large main body shell covering the front part of the lobster.

Coastal waters: All waters of the State within the rise and fall of the tide out to the 200 mile limit of the United States, but not including areas above any fishway or dam when the fishway or dam is the dividing line between tidewater and fresh water.

Dorsal: The top surface of the lobster.

Escape Vent: Opening in a lobster trap that allows undersized lobster to escape.

Extrude: The release of eggs from inside the female lobster to the tail.

Fish: The verb "fish" means to take or attempt to take any marine organism by any method or means.

Flipper: A large flattened piece, together with others, forming the tail fin.

Gastric Mill: The grinding device located inside the stomach.

Gauge: The legal measure used to check the minimum and maximum size of a lobster to make sure it is the proper size to keep.

Ghost Panel: A section designed to open a trap that is lost while fishing, thus releasing lobsters.

Ghost Trap: A trap that no longer has a line attached to a buoy on the surface of the water.

Hard Shell: A lobster with a firm shell and full of meat.

Head: The opening by which a lobster enters a trap.

Hog Ring: A small metal ring that holds the plastic escape vent in place.

Larva: A newly hatched lobster suspended in the water column.

Liberated: Set free.

Lobster: A crustacean of the species *Homarus americanus*.

Molting: The process of shedding the shell to grow in size.

Mutilated: Any female lobster that has the end part of the flipper to the right of the middle mutilated in such a manner that would hide or obliterate a v-notch.

Parlor: The part of a lobster trap designed or intended to hold or detain lobsters until they are removed by the fishermen.

Personal use: For consumption or use by oneself, by members of the immediate family or invited guest.

Possession: To have in one's custody or control, either personally, or by another who is under one's control.

Regenerate: To grow back a missing part.

Resident: 1) If registered to vote, is registered in Maine. 2) If licensed to drive a motor vehicle, has made application for a Maine motor vehicle operator's license. 3) If the owner of one or more motor vehicles located within the State, has registered at least one of the motor vehicles in Maine; and 4) If required to file a Maine income tax return on the previous April 15th, filed a Maine income tax return.

Rostrum: Sharp bony projection or "horn" located above the eye sockets.

Runner: A device on the bottom of a lobster trap that prevents damage to the lobster claws and allows the trap to be pulled smoothly out of the water.

Scrub: The artificial removal of a female lobsters eggs.

Sell: To sell, offer to sell, or expose for sale.

Shedder: A lobster that has recently molted, resulting in a soft shell with a small quantity of meat.

Smack: Small sailing vessels with a tank inside that had holes drilled into it to allow sea water to circulate. Smacks were developed in the 1800's to transport live lobsters over long distances.

Stem: The main upright timber or metal piece at the bow of a boat, to which the boat's sides are joined.

Swimmerets: Flap like structures located underneath the tail, with the first pair distinguishing a male from a female.

Sunrise: The time given for sunrise as computed and established for Augusta, Maine by the Nautical Almanac Office of the United States Naval Observatory for the particular day involved, converted to the legal standard of time in force in Maine on that day.

Sunset: The time given for sunset as computed and established for Augusta, Maine by the Nautical Almanac Office of the United States Naval Observatory for the particular day involved, converted to the legal standard of time in force in Maine on that day.

Take: To remove or attempt to remove a marine organism from its natural habitat.

Tomalley: The digestive gland that absorbs food and toxins. Tomalley is unhealthy for human consumption and should be discarded.

Transfer: To transport by boat on the water.

Trap: A lobster trap, pot, or other stationary contrivance or device that may be set on the ocean bottom and used for the taking of lobster or crabs.

V-Notch: A distinct v-notch of any size in the end part of the flipper to the right of middle.

Ventral: The underneath side of a lobster.

Walking Legs: The long, thin legs used by the lobster to walk.

Weak Link: A section between the buoy and pot line that has a breaking strength no greater than 600 pounds.

